

4. Hence, at  $t$ ,  $y$  or its functional equivalent is present in  $x$ .

The addition of functional equivalents, however, does not help us. In fact, this revision of the model now leaves us with an explanation that is vacuous. It simply asserts that if a society is functioning adequately then something or other must account for that. Once again, this is not enlightening about what it is we wanted to explain; the existence of ritual in the society. The conclusion tells us that somehow the need for social maintenance is being satisfied given the truth of premises one and two.

The addition of "functional equivalents," moreover, makes the explanation more problematic. First, as Hempel has pointed out, what do we mean by "functional equivalents?" How are we to identify the functional equivalents of a religious ritual? Secondly, the introduction of functional equivalents produces serious complications regarding the empirical status of the explanation. If we are free to substitute equivalent units for a particular unit (say, ritual), then the question arises whether we are still observing the same society at  $t$ , under the conditions specified.

What is worse, this revision of changing "ritual" to "ritual or its functional equivalent" does not correct the contradiction of requirement "c" in the table of necessary conditions. I find it odd that Hempel did not notice this error in his presentation of the revision. The revised model is invalid on the same basis as the first.

The first model was abbreviated as follows to demonstrate the fallacy: If  $y$  then  $z$ ;  $z$ , therefore  $y$ . The revised model seems to assert the following: If  $(y \vee A \vee B \vee C \dots n)$  then  $z$ .  $z$ , therefore,  $(y \vee A \vee B \vee C \dots n)$ . Inserting functional equivalents into the argument does not validate the invalid argument.<sup>13</sup>

There is a third way of correcting the validity of the conclusion. This move is the opposite of the solution we have discussed thus far. Instead of attempting to expand premise three, it tightens it by making premise three a necessary condition for social maintenance. Premise one and two remain the same, but three is changed as follows:

3. Only if unit  $y$  were present in  $x$ , then, as an effect condition  $z$  would be satisfied.
4. Hence, at  $t$ , unit  $y$  is present in  $x$ .

From a logical point of view the change of premise three provides us with a valid conclusion. This is so because when we refer to the tables we find that "d" under "necessary conditions" states that "the presence of the ritual entails the presence of social maintenance."

The problem, however, of turning a cultural unit such as ritual into a necessary condition for the maintenance of a society is a severe one. How are we to maintain that a ritual is indispensable or necessary, to a society? Critics of functionalism, such as Merton, Hempel, Nagel, and Jarvie, have pointed out that the claim of "functional indispensability" for any cultural unit is difficult to sustain on empirical grounds and, in the end reduces functional explanations to a tautology.<sup>14</sup>

Hempel presents one last possible revision which might satisfy the requirements for a valid explanation. Once again the first two premises remain the same. Premise three is changed as follows:

3.  $i$  is the class of empirically sufficient conditions for  $z$  in the context determined by  $x$  and  $c$ , and  $i$  is not empty.
4. Hence, some one of the items included in  $i$  is present in  $x$  at  $t$  under conditions  $c$ .

The argument as it stands is trivial; some one item is present, but we are not able to specify which item is functioning to satisfy the requirement of social maintenance. Once again, let us recall that functional explanations have been presented as explanations which account for why ritual, myth, or religion is present in a society and why these cultural units persist in a society. On reflecting on this fourth alternative it seems to me that it is no different in its logical construction than the second revision which includes functional equivalents in premise three. Hempel believes that this last revision is valid, although trivial in its conclusion. This seems odd. What we would need, I think, is an additional premise which could be stated as follows:

3.  $i$  is the class of empirically sufficient conditions for  $z$  in the conditions determined by  $x$  and  $c$ , and  $i$  is not empty.
- 3.1 The class of empirically sufficient conditions for  $z$  constitutes a disjointly necessary condition for  $z$ .
4. Hence, some one of the items....